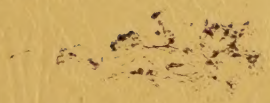
INSTRUCTION MANUAL

SLOPE - SPEED CONTROL
8050 - A

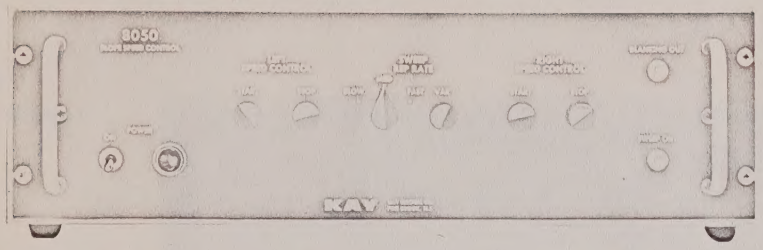


MP MASTER
MA34846

KAY ELECTRIC CO.
PINE BROOK, N. J.

INSTRUCTION MANUAL
ISSUE A

FEBRUARY 1966



SLOPE - SPEED CONTROL
8050 - A

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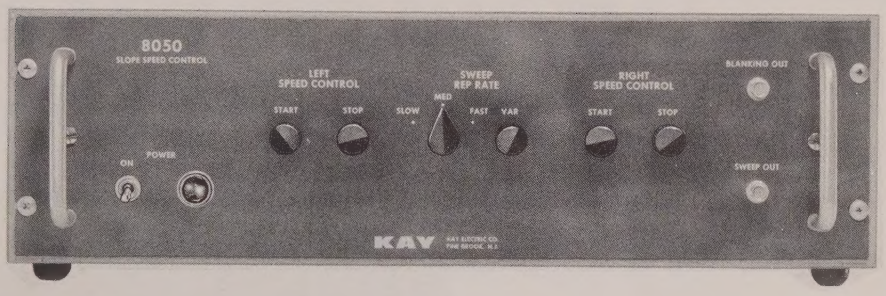
KAY ELECTRIC COMPANY
Pine Brook, N. J. 07058
201-226-4000
TWX - 710-734-4347

INTER-OFFICE DATA

8050-A SLOPE - SPEED CONTROL

Converts Small, or
Large, Portions of A
Fast-Sweep to Slow Sweep

Eliminates Ringing,
Permits Fast Sweeping



The 8050-A is a solid state sweep voltage generator designed for use with most Kay sweep generators in adapting the swept frequency output to the requirements of the circuit under test. It provides control over the rate of change,frequency per unit time.

Individual Start-Stop controls on each of two separately adjustable slow sweep segments, permit the use of a slow sweep in areas where ringing may occur, but maintain an easy to use fast sweep over the remainder of the frequency swing.

The 8050-A also provides for expanded viewing of sharp slope areas. Selected areas can be "blown-up" in relation to the rest of the trace.

The 8050-A eliminates the necessity of sweeping overall passband characteristics of the slow rate determined by its critical areas e.g., a sharp slope or trap. The usual faint oscilloscope trace provided by very slow sweeps can be avoided. Higher repetition rates over most of the band provide a bright trace. In the areas of slow rate, the oscilloscope beam is automatically held in place longer, providing an additional intensification of brightness.

SPECIFICATIONS

Sweep Rates:

Without slow rate segments:

Fast: 10 to 200 cps

Med.: 2 to 30 cps

Slow: .2 to 4 cps

With full slow segments:

Slow: 25 seconds for each sweep

Sweep Voltage: -4 to + 4 volts, at 4500 ohms

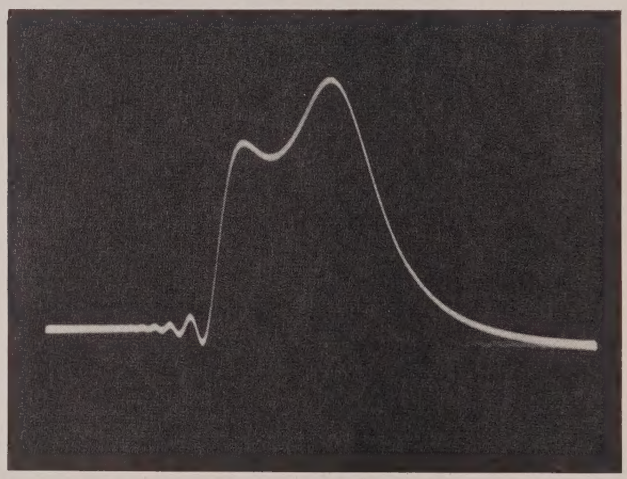
Blanking voltage: Separately available for sync or blanking: 12 volts offset to -2V, at 3000 ohms.

Dimensions: $5\frac{1}{4}$" x 19" standard rack size

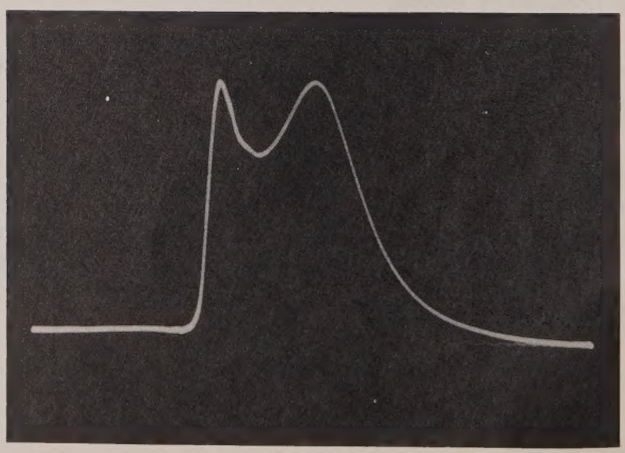
Power: 117 v ±10% AC, 50-60 cps, 5 watts

Price: 245.00

WITHOUT 8050-A



WITH 8050-A



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OPERATING INSTRUCTIONS

FOR

8050A SLOPE SPEED CONTROL

EXTERNAL CONTROLS

Power ON switch S1 - This switch controls the power line current. In the ON position the Power ON indicator is illuminated and the + 10 volt and - 10 volt power supplies are energized.

Sweep Rep. Rate Switch S2 - This three position switch selects the sweep repetition rate ranges, Slow (0.2 - 4 cps), Med. (2 - 30 cps), or Fast (10 - 200 cps).

Sweep Rep. Rate Variable Control R18, - sets the sweep repetition rate within the range selected by the Sweep Rep. Rate switch.

Right Speed Control Start R8 - This control sets the position of the starting point of the slow segment on the right side of the sweep trace.

Right Speed Control Stop R1 - This control sets the position of the end of the slowed segment of the sweep on the right side of the sweep trace.

Left Speed Control Start R16 - This control sets the position of the starting point of the slowed segment on the left side of the sweep trace.

Left Speed Control Stop R9 - This control sets the position of the end of the slowed segment on the left side of the sweep trace.

INTERNAL CONTROL

Output Bal. Adj. - This control adjusts the symmetry of the sawtooth sweep voltage around zero.

TERMINALS

Sweep Out J2 - This connector supplies the sawtooth sweep voltage which is normally used to externally sweep the Sweep Generator.

Blanking Out J2 - This connector supplies a negative pulse during approx. the first 10% of the sweep trace. This pulse may in some cases be used for blanking or triggering purposes. The ratio of the pulse width to the sweep trace time can be varied somewhat by selecting a value of R40.

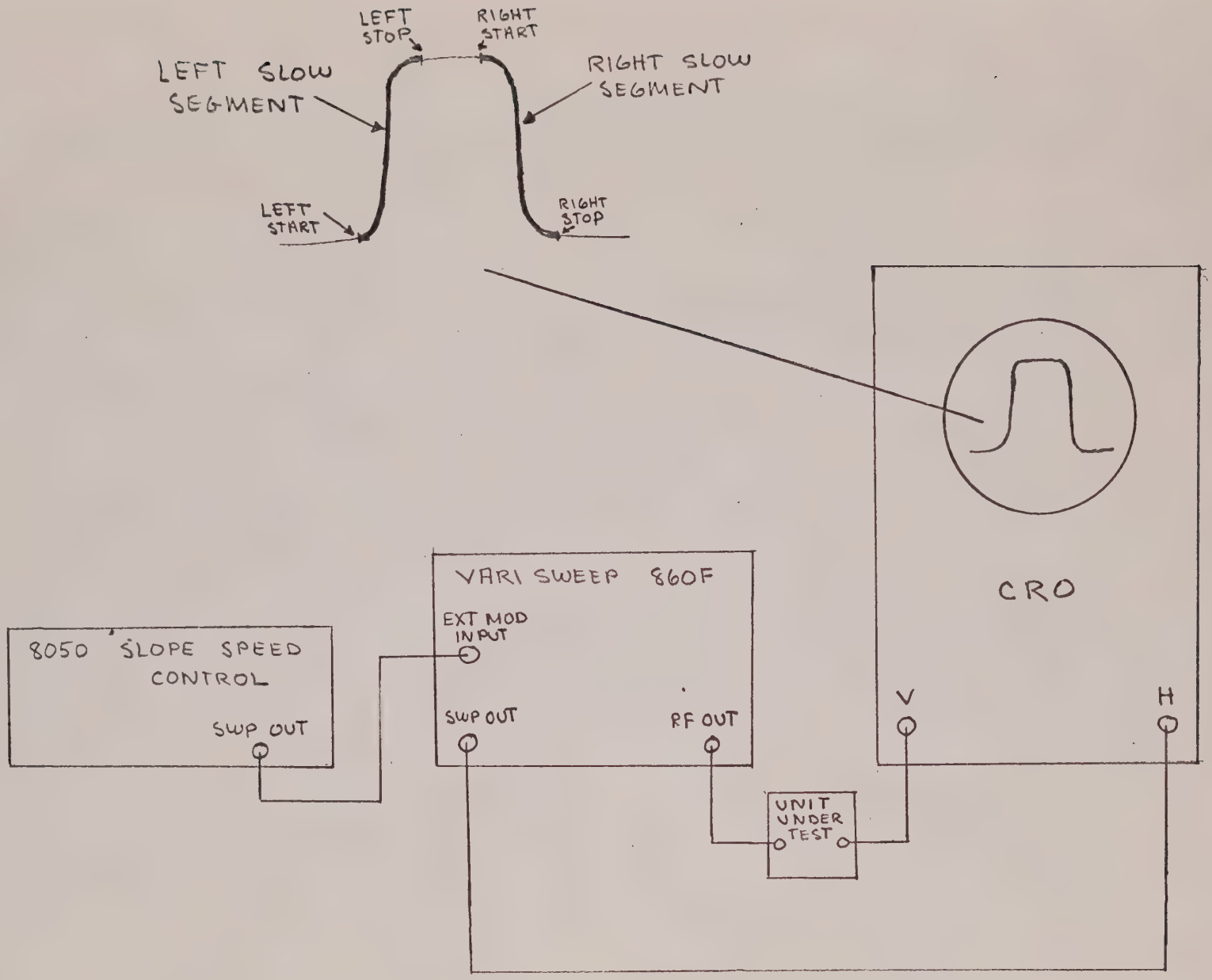
OPERATION

1. Connect the Sweep Out connector of the 8050 Slope Speed Control to the "Ext. Mod. Input" connector on the front panel of the sweep generator.

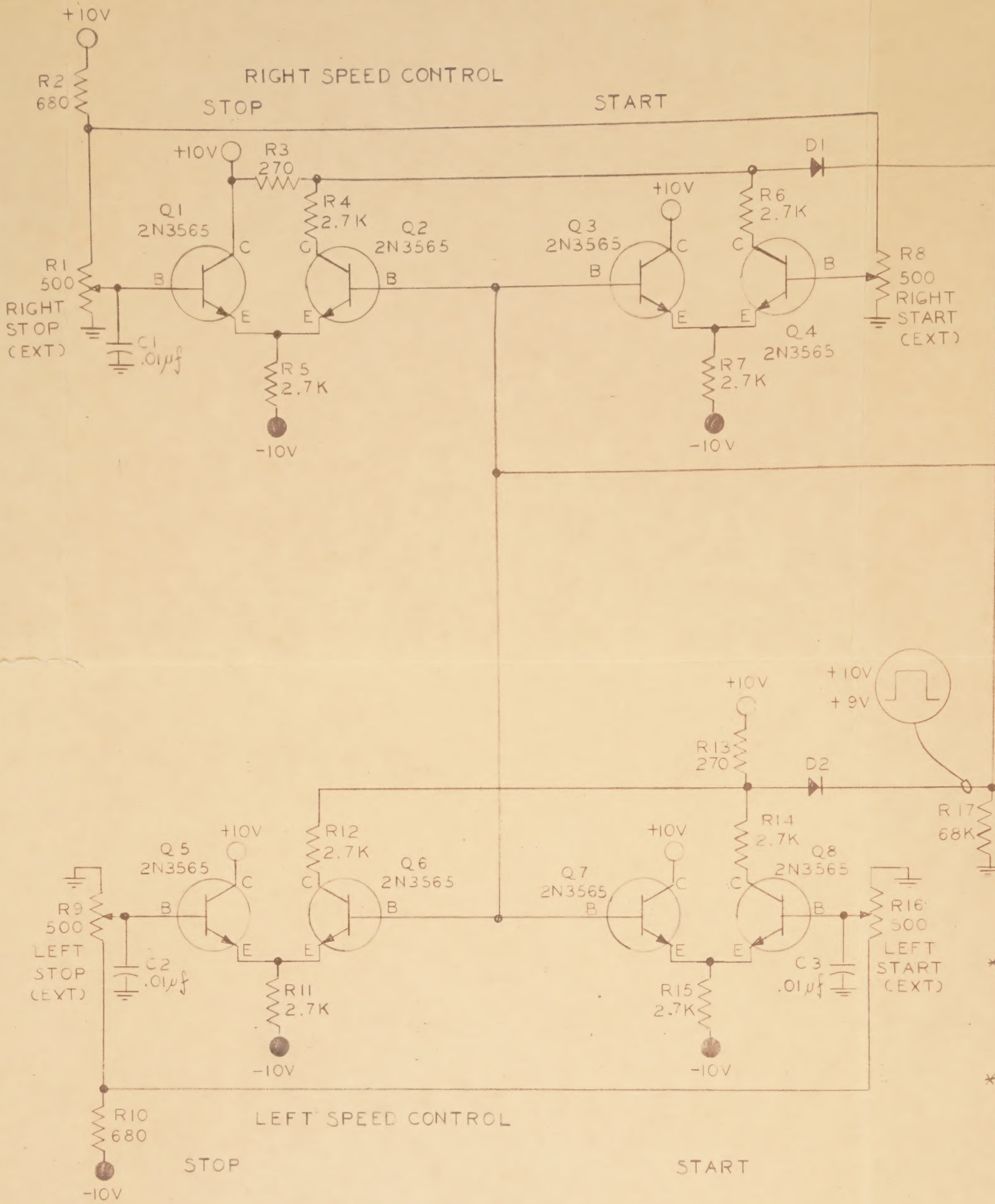
2. The sweep generator should be connected in its normal fashion with the "Sweep Out " terminals connected to the oscilloscope horizontal input. Set the "Sweep Selector" control to "Ext. Mod.". The "Ext. Mod. Bal." adjust, located on the right side bracket of the sweep generator, should be set for operation with an ext. mod. signal that is symmetrical around zero (approx. mid range), see sweep generator instruction manual.

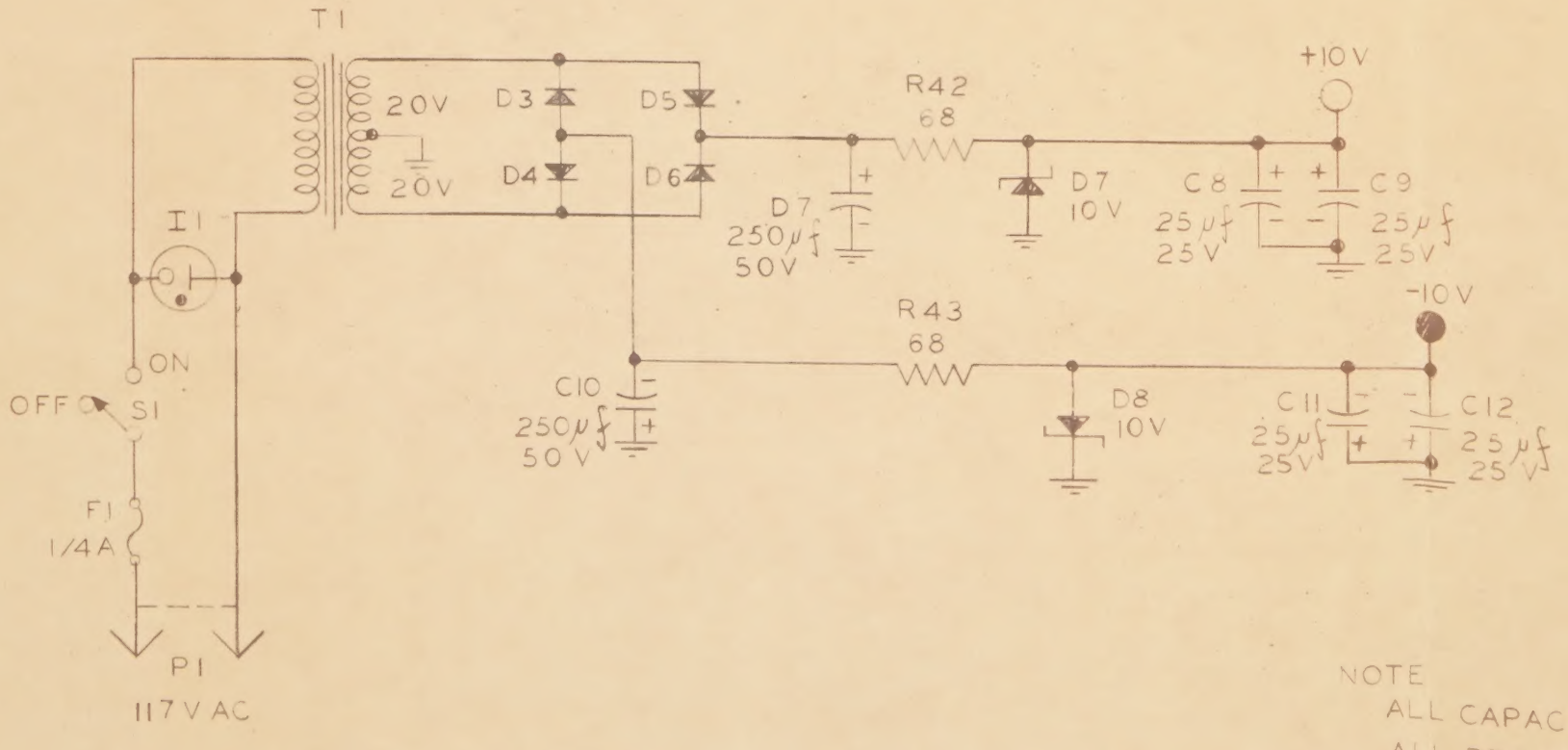
3. Set the "Sweep Rep Rate" controls to the desired sweep rate. (Rep. Rates above 80 cps will be attenuated slightly by some sweep generators).

4. By adjusting the Left and Right Speed Control adjustments one or two segments of the sweep trace may be slowed to approx. 1/4 of the normal speed. During the slowed segments of the trace the oscilloscope beam is automatically held in place longer, providing an intensification of brightness. By proper adjustment of these controls the slowed segments can be set to occupy all or any part of the sweep trace.

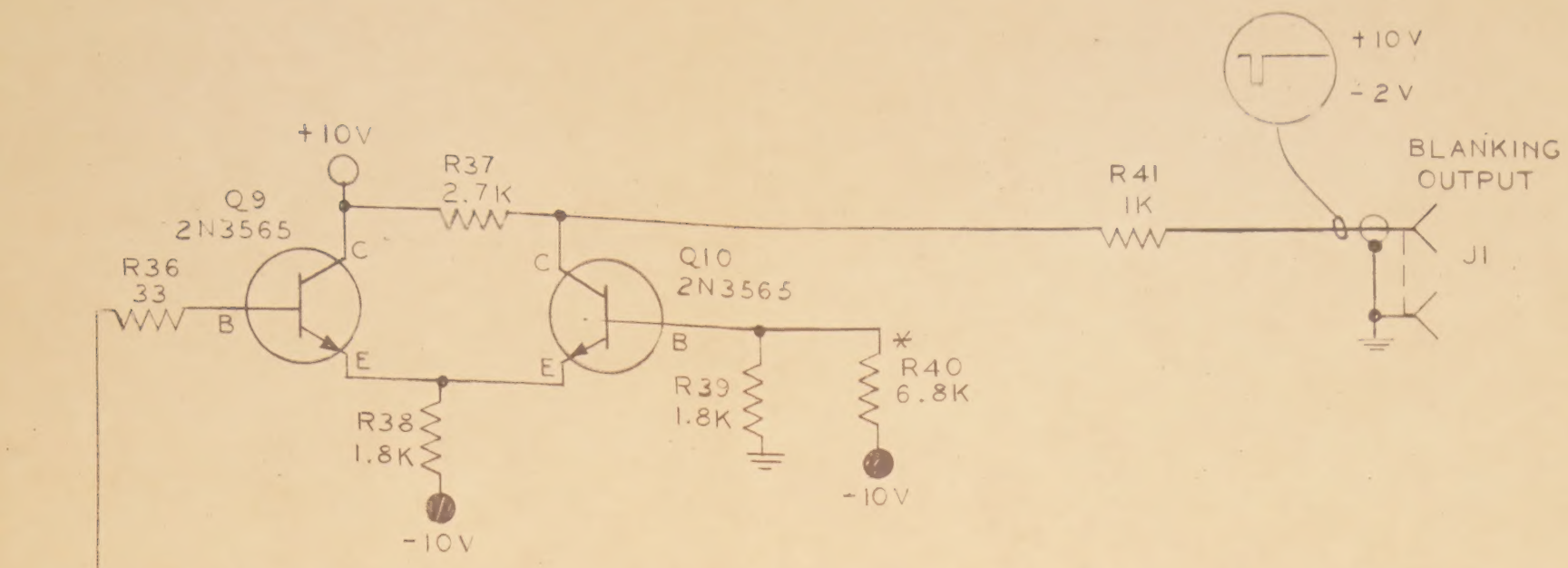


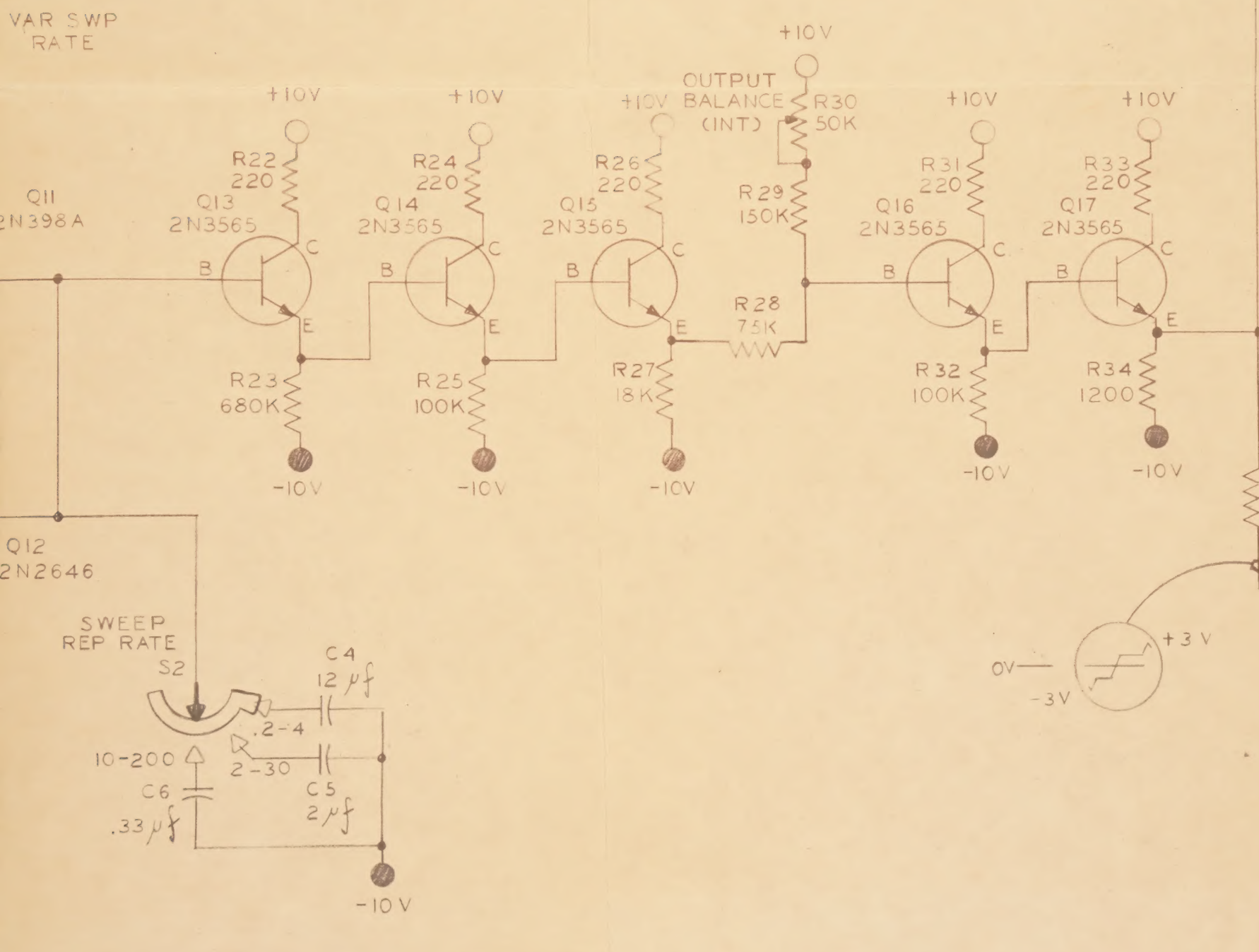
TYPICAL INTERCONNECTION DIAGRAM





NOTE
ALL CAPACITANCES ARE I
ALL RESISTANCES ARE IN
* FACTORY SELECTED





TRY 2.7K for R35 to increase Sweep outp.

SCHEMATIC	SLOPE SPEED CONTROL 8050 A	
MAT.	FINISH:	SCALE:

TOLERANCES UNLESS OTHERWISE SPECIFIED:
DECIMAL ± .005 | FRACTIONAL ± 1/64 | ANGULAR ± 30 MIN.

CHANGE	DATE	APP.

KAY ELECTRIC CO.
PINE BROOK, N. J.

DWN. BY AWP	DATE 3-2-66
APP. BY N. THEN	DATE 3-2-66

DWG. NO. C9463A

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